

SAFETY DATA SHEET



Connection Unit with Regulator 1/8in, Part Number CP7998

Section 1. Identification

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name : Connection Unit with Regulator 1/8in, Part Number CP7998
Part No. (Chemical Kit) : CP7998
Part No. : Gas Clean Filter Oxygen CP17970
 Gas Clean Filter Moisture CP17971
 Gas Clean Filter Hydrocarbon CP17972
Validation date : 4/27/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses : Analytical chemistry.
 Gas Clean Filter Oxygen 1 x 200 ml
 Gas Clean Filter Moisture 1 x 200 ml
 Gas Clean Filter Hydrocarbon 2 x 200 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

OSHA/HCS status : Gas Clean Filter Oxygen This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Gas Clean Filter Moisture This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Gas Clean Filter Hydrocarbon This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Gas Clean Filter Oxygen
 H315 SKIN IRRITATION - Category 2
 H319 EYE IRRITATION - Category 2A
 H317 SKIN SENSITIZATION - Category 1
 H350 CARCINOGENICITY - Category 1A
 H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1

Gas Clean Filter Moisture
 H350 CARCINOGENICITY - Category 1A

Section 2. Hazards identification

H371 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (lungs) - Category 2
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 2

Gas Clean Filter Hydrocarbon

Comb. Dusts COMBUSTIBLE DUSTS
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 2

Ingredients of unknown toxicity : Gas Clean Filter Moisture Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 100%

2.2 GHS label elements

Hazard pictograms



Signal word

Gas Clean Filter Oxygen Danger
 Gas Clean Filter Moisture Danger
 Gas Clean Filter Hydrocarbon Warning

Hazard statements

Gas Clean Filter Oxygen
GHS SYMBOL - Exclamation mark - Health hazard -
 H319 - Causes serious eye irritation.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H350 - May cause cancer.
 H372 - Causes damage to organs through prolonged or repeated exposure. (lungs)
 Gas Clean Filter Moisture
GHS SYMBOL - Health hazard -
 H350 - May cause cancer.
 H371 - May cause damage to organs. (lungs)
 H373 - May cause damage to organs through prolonged or repeated exposure. (lungs)
 Gas Clean Filter Hydrocarbon
No Code(s) - May form combustible dust concentrations in air.
GHS SYMBOL - Health hazard -
 H373 - May cause damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention

Gas Clean Filter Oxygen
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P260 - Do not breathe dust.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash hands thoroughly after handling.
 P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
 Gas Clean Filter Moisture
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P260 - Do not breathe dust.

Section 2. Hazards identification

Response	Gas Clean Filter Hydrocarbon : <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. P260 - Do not breathe dust or mist. P314 - Get medical attention if you feel unwell. P308 + P313 - IF exposed or concerned: Get medical attention. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon : <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	P314 - Get medical attention if you feel unwell. P308 + P311 - IF exposed or concerned: Call a POISON CENTER or physician. P314 - Get medical attention if you feel unwell. P405 - Store locked up. P405 - Store locked up. Not applicable.
Disposal	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	None known. None known. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
2.3 Other hazards		
Hazards not otherwise classified	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	None known. None known. None known.

Section 3. Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

Substance/mixture	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Mixture (encapsulated in article) Mixture (encapsulated in article) Substance (encapsulated in article)
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Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Gas Clean Filter Oxygen		
aluminium oxide	≥75 - ≤90	1344-28-1
Copper oxide, Activated	<10	1317-38-0
Manganese dioxide	≤10	1313-13-9
nickel monoxide	<1	1313-99-1
Sulphuric acid	≤0.1	7664-93-9
Gas Clean Filter Moisture		
crystalline silica, respirable powder	≤10	14808-60-7
cristobalite	≤10	14464-46-1
Gas Clean Filter Hydrocarbon		
carbon	100	7440-44-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact

: **Gas Clean Filter Oxygen**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Gas Clean Filter Moisture

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.

Gas Clean Filter Hydrocarbon

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

Inhalation

: **Gas Clean Filter Oxygen**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Gas Clean Filter Moisture

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give

Section 4. First aid measures

mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Gas Clean Filter Hydrocarbon

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Skin contact

:  Gas Clean Filter Oxygen

Gas Clean Filter Moisture

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Gas Clean Filter Hydrocarbon

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

:  Gas Clean Filter Oxygen

Gas Clean Filter Moisture

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is

Section 4. First aid measures

Gas Clean Filter Hydrocarbon

conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Gas Clean Filter Oxygen
Gas Clean Filter Moisture
Gas Clean Filter Hydrocarbon
- Inhalation** : Gas Clean Filter Oxygen
Gas Clean Filter Moisture
Gas Clean Filter Hydrocarbon
- Skin contact** : Gas Clean Filter Oxygen

Gas Clean Filter Moisture
Gas Clean Filter Hydrocarbon
- Ingestion** : Gas Clean Filter Oxygen
Gas Clean Filter Moisture
Gas Clean Filter Hydrocarbon

Causes serious eye irritation.
No known significant effects or critical hazards.
Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

No known significant effects or critical hazards.
No known significant effects or critical hazards.
Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Causes skin irritation. May cause an allergic skin reaction.

No known significant effects or critical hazards.
No known significant effects or critical hazards.

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Gas Clean Filter Oxygen

Gas Clean Filter Moisture
Gas Clean Filter Hydrocarbon

Adverse symptoms may include the following:
pain or irritation
watering
redness

No specific data.

Adverse symptoms may include the following:
irritation
redness

Section 4. First aid measures

Inhalation	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Adverse symptoms may include the following: irritation redness No specific data. No specific data.
Ingestion	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No specific data. No specific data. No specific data.



4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.



See toxicological information (Section 11)

Section 5. Fire-fighting measures



5.1 Extinguishing media

Suitable extinguishing media	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use dry chemical powder.
Unsuitable extinguishing media	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	None known. None known. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No specific fire or explosion hazard. No specific fire or explosion hazard. May form explosible dust-air mixture if dispersed.
Hazardous thermal decomposition products	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Decomposition products may include the following materials: metal oxide/oxides Decomposition products may include the following materials: metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:  Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Gas Clean Filter Oxygen

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Gas Clean Filter Moisture

Gas Clean Filter Hydrocarbon

For emergency responders

: Gas Clean Filter Oxygen

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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Gas Clean Filter Moisture

Gas Clean Filter Hydrocarbon

6.2 Environmental precautions

: Gas Clean Filter Oxygen

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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Gas Clean Filter Moisture

Gas Clean Filter Hydrocarbon

6.3 Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	: Gas Clean Filter Oxygen	Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	Gas Clean Filter Moisture	Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
	Gas Clean Filter Hydrocarbon	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: Gas Clean Filter Oxygen	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Gas Clean Filter Moisture	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Gas Clean Filter Hydrocarbon	Put on appropriate personal protective equipment (see Section 8). Do not breathe dust. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

Section 7. Handling and storage

<p>Advice on general occupational hygiene</p>	<p>: ☑ Gas Clean Filter Oxygen</p> <p>Gas Clean Filter Moisture</p> <p>Gas Clean Filter Hydrocarbon</p>	<p>use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
<p>7.2 Conditions for safe storage, including any incompatibilities</p>	<p>: ☑ Gas Clean Filter Oxygen</p> <p>Gas Clean Filter Moisture</p> <p>Gas Clean Filter Hydrocarbon</p>	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate</p>

Section 7. Handling and storage

from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations	:	<input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Industrial applications, Professional applications.
		Gas Clean Filter Moisture	Industrial applications, Professional applications.
		Gas Clean Filter Hydrocarbon	Industrial applications, Professional applications.
Industrial sector specific solutions	:	<input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Not applicable.
		Gas Clean Filter Moisture	Not applicable.
		Gas Clean Filter Hydrocarbon	Not applicable.

Section 8. Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> Gas Clean Filter Oxygen aluminium oxide	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hours. Form: Dust TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</p> <p>NIOSH REL (United States, 10/2013). TWA: 5 mg/m³, (as Al) 10 hours. Form: PYRO POWDERS AND WELDING FUMES</p> <p>OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States, 3/2016). TWA: 1 mg/m³ 8 hours. Form: Respirable fraction</p>
Copper oxide, Activated	<p>NIOSH REL (United States, 10/2013). TWA: 0.1 mg/m³, (as Cu) 10 hours. Form: Fume</p> <p>OSHA PEL (United States). TWA: 1 mg/m³, (Cu) 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States). TWA: 1 mg/m³, (Cu) 8 hours. Form: Total dust</p>
Manganese dioxide	<p>OSHA PEL 1989 (United States, 3/1989). CEIL: 5 mg/m³, (as Mn)</p> <p>NIOSH REL (United States, 10/2013). TWA: 1 mg/m³, (as Mn) 10 hours. Form: Fume STEL: 3 mg/m³, (as Mn) 15 minutes. Form: Fume</p> <p>OSHA PEL (United States, 6/2016). CEIL: 5 mg/m³, (as Mn)</p> <p>ACGIH TLV (United States, 3/2016).</p>

Section 8. Exposure controls/personal protection

nickel monoxide

TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction
 TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction

ACGIH TLV (United States, 3/2016).

TWA: 0.2 mg/m³, (as Ni) 8 hours. Form: Inhalable fraction

NIOSH REL (United States, 10/2013). Notes: as Ni

TWA: 0.015 mg/m³, (as Ni) 10 hours.

OSHA PEL (United States, 6/2016). Notes: as Ni

TWA: 1 mg/m³, (as Ni) 8 hours.

OSHA PEL 1989 (United States, 3/1989).

Notes: as Ni

TWA: 1 mg/m³, (as Ni) 8 hours.

OSHA PEL 1989 (United States, 3/1989).

TWA: 1 mg/m³ 8 hours.

NIOSH REL (United States, 10/2013).

TWA: 1 mg/m³ 10 hours.

ACGIH TLV (United States, 3/2016).

TWA: 0.2 mg/m³ 8 hours. Form: Thoracic fraction

OSHA PEL (United States, 6/2016).

TWA: 1 mg/m³ 8 hours.

Sulphuric acid

Gas Clean Filter Moisture

crystalline silica, respirable powder

OSHA PEL Z3 (United States, 6/2016).

TWA: 250 mppcf / (%SiO₂+5) 8 hours. Form: Respirable

TWA: 10 mg/m³ / (%SiO₂+2) 8 hours. Form: Respirable

OSHA PEL 1989 (United States, 3/1989).

TWA: 0.1 mg/m³, (as quartz) 8 hours. Form: Respirable dust

OSHA PEL (United States, 6/2016).

TWA: 50 µg/m³ 8 hours. Form: Respirable dust

ACGIH TLV (United States, 3/2016).

TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction

NIOSH REL (United States, 10/2013).

TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

cristobalite

OSHA PEL Z3 (United States, 6/2016).

TWA: 250 mppcf / 2 x (%SiO₂+5) 8 hours. Form: Respirable

TWA: 10 mg/m³ / 2 x (%SiO₂+2) 8 hours.

Form: Respirable

TWA: 30 mg/m³ / 2 x (%SiO₂+2) 8 hours.

Form: Total dust

OSHA PEL 1989 (United States, 3/1989).

TWA: 0.05 mg/m³, (as quartz) 8 hours. Form: Respirable dust

OSHA PEL (United States, 6/2016).

TWA: 50 µg/m³ 8 hours. Form: Respirable

Section 8. Exposure controls/personal protection

Gas Clean Filter Hydrocarbon carbon

dust
ACGIH TLV (United States, 3/2016).
 TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction
NIOSH REL (United States, 10/2013).
 TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

 None.

8.2 Exposure controls

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Gas Clean Filter Oxygen	Solid. [Granular solid.]
	: Gas Clean Filter Moisture	Solid. [Granular solid.]
	: Gas Clean Filter Hydrocarbon	Solid. [Powder.]
Color	: Gas Clean Filter Oxygen	Brown. [Dark]
	: Gas Clean Filter Moisture	Tan.
	: Gas Clean Filter Hydrocarbon	Black.
Odor	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	None
Odor threshold	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
pH	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Melting point	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	3652°C (6605.6°F)
Boiling point	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Flash point	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Closed cup: >535°C (>995°F)
	: Gas Clean Filter Hydrocarbon	Not available.
Evaporation rate	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not applicable.
Flammability (solid, gas)	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Lower and upper explosive (flammable) limits	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Vapor pressure	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Vapor density	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.
Relative density	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	1.9 to 2.2 [Water = 1]
Solubility	: Gas Clean Filter Oxygen	Insoluble in the following materials: cold water and hot water.
	: Gas Clean Filter Moisture	Insoluble in the following materials: cold water and hot water.
	: Gas Clean Filter Hydrocarbon	Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Gas Clean Filter Oxygen	Not available.
	: Gas Clean Filter Moisture	Not available.
	: Gas Clean Filter Hydrocarbon	Not available.

Section 9. Physical and chemical properties

Auto-ignition temperature	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
	Gas Clean Filter Hydrocarbon	452°C (845.6°F)
Decomposition temperature	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
	Gas Clean Filter Hydrocarbon	Not available.
Viscosity	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
	Gas Clean Filter Hydrocarbon	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No specific test data related to reactivity available for this product or its ingredients.
	Gas Clean Filter Moisture	No specific test data related to reactivity available for this product or its ingredients.
	Gas Clean Filter Hydrocarbon	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	The product is stable.
	Gas Clean Filter Moisture	The product is stable.
	Gas Clean Filter Hydrocarbon	The product is stable.
10.3 Possibility of hazardous reactions	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Under normal conditions of storage and use, hazardous reactions will not occur.
	Gas Clean Filter Moisture	Under normal conditions of storage and use, hazardous reactions will not occur.
	Gas Clean Filter Hydrocarbon	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
	Gas Clean Filter Hydrocarbon	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
10.5 Incompatible materials	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	May react or be incompatible with oxidizing materials.
	Gas Clean Filter Moisture	May react or be incompatible with oxidizing materials.
	Gas Clean Filter Hydrocarbon	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Gas Clean Filter Moisture	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Gas Clean Filter Hydrocarbon	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Gas Clean Filter Oxygen				
aluminium oxide	LD50 Oral	Rat	>5000 mg/kg	-
Copper oxide, Activated	LD50 Oral	Rat	470 mg/kg	-
Manganese dioxide	LD50 Oral	Rat	3478 mg/kg	-
nickel monoxide	LD50 Oral	Rat	>5000 mg/kg	-
Sulphuric acid	LD50 Oral	Rat	2140 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Gas Clean Filter Oxygen					
Sulphuric acid	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 5 milligrams	-

Sensitization

Not available.

Conclusion/Summary

Skin : May cause sensitization by skin contact.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Gas Clean Filter Oxygen			
nickel monoxide	-	1	Known to be a human carcinogen.
Sulphuric acid	-	1	Known to be a human carcinogen.
Gas Clean Filter Moisture			
crystalline silica, respirable powder	-	1	Known to be a human carcinogen.
crystalalite	-	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Gas Clean Filter Oxygen Copper oxide, Activated	Category 3	Not applicable.	Respiratory tract irritation
Gas Clean Filter Moisture crystalline silica, respirable powder	Category 2	Inhalation	lungs

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Gas Clean Filter Oxygen aluminium oxide nickel monoxide	Category 1 Category 1	Inhalation Not determined	lungs lungs
Gas Clean Filter Moisture cristobalite	Category 2	Not determined	lungs
Gas Clean Filter Hydrocarbon carbon	Category 2	Not determined	lungs

Aspiration hazard

Not available.

Information on the likely routes of exposure	: Gas Clean Filter Oxygen	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Gas Clean Filter Moisture	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Gas Clean Filter Hydrocarbon	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: Gas Clean Filter Oxygen	Causes serious eye irritation.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation	: Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact	: Gas Clean Filter Oxygen	Causes skin irritation. May cause an allergic skin reaction.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards.
Ingestion	: Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Adverse symptoms may include the following: pain or irritation watering redness
	Gas Clean Filter Moisture	No specific data.
	Gas Clean Filter Hydrocarbon	Adverse symptoms may include the following: irritation redness
Inhalation	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
	Gas Clean Filter Hydrocarbon	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Adverse symptoms may include the following: irritation redness
	Gas Clean Filter Moisture	No specific data.
	Gas Clean Filter Hydrocarbon	No specific data.
Ingestion	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
	Gas Clean Filter Hydrocarbon	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
	Gas Clean Filter Moisture	May cause damage to organs through prolonged or repeated exposure.
	Gas Clean Filter Hydrocarbon	May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	May cause cancer. Risk of cancer depends on duration and level of exposure.
	Gas Clean Filter Moisture	May cause cancer. Risk of cancer depends on duration and level of exposure.
	Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards.
Mutagenicity	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards.
Teratogenicity	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
	Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: <input checked="" type="checkbox"/> Gas Clean Filter Oxygen Gas Clean Filter Moisture Gas Clean Filter Hydrocarbon	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Gas Clean Filter Oxygen	
Oral	2735.1 mg/kg
Inhalation (dusts and mists)	17.44 mg/l

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Gas Clean Filter Oxygen aluminium oxide	Acute EC50 114.357 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Copper oxide, Activated	Acute LC50 2.6 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Manganese dioxide	Acute LC50 >56000 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
Sulphuric acid	LC50 >100 mg/l	Fish - Oncorhynchus mykiss	96 hours
	NOEC >100 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 42500 µg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
Gas Clean Filter Hydrocarbon carbon	Acute LC50 42 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute NOEC ≥100 mg/l	Fish - Danio rerio	96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
<input checked="" type="checkbox"/> Gas Clean Filter Oxygen nickel monoxide	-	5613	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

12.5 Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 307: Copper oxide, Activated; nickel monoxide
Clean Water Act (CWA) 311: Sulphuric acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Gas Clean Filter Oxygen Sulphuric acid	≤0.1	Yes.	1000	66.3	1000	66.3

SARA 304 RQ : 6000000 lbs / 2724000 kg

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Gas Clean Filter Oxygen aluminium oxide	≥75 - ≤90	No.	No.	No.	No.	Yes.
Copper oxide, Activated	<10	No.	No.	No.	Yes.	No.
Manganese dioxide	≤10	Yes.	No.	No.	Yes.	No.
nickel monoxide	<1	No.	No.	No.	Yes.	Yes.
Sulphuric acid	≤0.1	No.	No.	No.	Yes.	No.
Gas Clean Filter Moisture crystalline silica, respirable powder	≤10	No.	No.	No.	Yes.	Yes.
crystalalite	≤10	No.	No.	No.	No.	Yes.
Gas Clean Filter Hydrocarbon carbon	100	Yes.	No.	No.	No.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Gas Clean Filter Oxygen		
	Copper oxide, Activated	1317-38-0	<10
	Manganese dioxide	1313-13-9	≤10
	nickel monoxide	1313-99-1	<1
Supplier notification	Gas Clean Filter Oxygen		
	Copper oxide, Activated	1317-38-0	<10
	Manganese dioxide	1313-13-9	≤10
	nickel monoxide	1313-99-1	<1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: ALUMINUM OXIDE; CRISTOBALITE DUST; SILICA, CRYSTALLINE, QUARTZ

New York

: None of the components are listed.

New Jersey

: The following components are listed: ALUMINUM OXIDE; alpha-ALUMINA; COPPER compounds; NICKEL OXIDE; NICKEL MONOXIDE; SILICA, CRISTOBALITE; CRISTOBALITE (SiO₂); SILICA, QUARTZ; QUARTZ (SiO₂)

Pennsylvania

: The following components are listed: ALUMINUM OXIDE; COPPER COMPOUNDS; MANGANESE COMPOUNDS; NICKEL OXIDE; CRISTOBALITE DUST; CRISTOBALITE; QUARTZ DUST; QUARTZ

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 15. Regulatory information

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
<input checked="" type="checkbox"/> Gas Clean Filter Oxygen nickel monoxide Sulphuric acid	Yes. Yes.	No. No.	No. No.	No. No.
Gas Clean Filter Moisture crystalline silica, respirable powder cristobalite	Yes. Yes.	No. No.	No. No.	No. No.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
- Canada inventory** : Not determined.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- Malaysia** : All components are listed or exempted.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : All components are listed or exempted.
- Turkey** : Not determined.

Section 16. Other information

History

- Date of issue** : 04/27/2017
- Date of previous issue** : 10/28/2015.
- Version** : 3

Indicates information that has changed from previously issued version.

Notice to reader

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